Abstract

The invention relates to a three-dimensional flow cell for aligning non-isometric particles in a liquid sample in two axes, comprising a feed zone for the sample containing non-isometric particles to be aligned and an outlet for the sample containing non-isometric particles aligned in two axes, a fluid element of the sample with the dimensions a, b, c being transformed in an expansion zone into a fluid element with the dimensions a x n, b/n x m, c/m, a being the width, b the height and c the length of the fluid element and n and m being constants which depend on the geometry of the flow cell and which signify positive numbers ≥ 1, a method of aligning non-isometric particles in a liquid sample, the use of the three-dimensional flow cell, a reflectance sensor which has the three-dimensional flow cell according to the invention, a method of measuring the reflectance of a liquid sample containing non-isometric particles and the use of the reflectance sensor according to the invention.